

For and on behalf of
Boningale Homes Limited

Preliminary Ecological Appraisal

Land at Tilstock Rd, Tilstock

NGR: SJ 542 380

Prepared by
Cass Design Consultants Ltd
Liverpool

October 2024

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Issue Status:	Version 2
Date:	24/10/2024

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CONTENTS	PAGE
1.0 INTRODUCTION.....	4
2.0 METHODS.....	5
3.0 RESULTS.....	6
4.0 BIODIVERSITY NET GAIN.....	15
5.0 DISCUSSION AND RECOMMENDATIONS	16
FIGURES	19

APPENDICES

APPENDIX 1	PROPOSED LANDSCAPE PLAN (REF P24-1425_EN_06)	24
APPENDIX 2	METHODOLOGY.....	25
APPENDIX 3	PLANNING POLICY AND SUMMARISED FLORA AND FAUNA LEGISLATION.....	29
APPENDIX 4	PHOTOGRAPHS	35
APPENDIX 5	REFERENCES.....	37

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1.0 INTRODUCTION

- 1.1 Cass Design Ltd (Cass) was commissioned by Boningale Homes Ltd to produce an Ecological Appraisal Report relating to land off Tilstock Road, Tilstock, Shropshire (hereafter referred to as the 'Site').
- 1.2 The work has been commissioned to inform a full planning application for proposals to develop the Site for Housing.
- 1.3 The Site is c.4 hectares (ha) in area, centred on Ordnance Survey Grid Reference SJ 54275 38065, and lies immediately to the north of the village of Tilstock. The Site comprises a single agricultural grassland field, with boundary hedgerows. Two ponds are present within the field.
- 1.4 The Site boundary and location is shown in **Figure 1**.

Proposals

- 1.5 Full application for erection of 70no. dwellings (including 10 affordable dwellings), associated landscaping, drainage and infrastructure, with access taken off Tilstock Road. As shown in the Landscape Masterplan (Pegasus drawing reference: P24-1425_EN_06) provided in **Appendix A**.

2.0 METHODS

- 2.1 A summary of the methodologies relevant to this assessment can be found in **Appendix 1**.
- 2.2 This Preliminary Ecological Appraisal Report (PEAR) includes the results of an ecological data search and an 'Extended' Phase 1 Habitat Survey.
- 2.3 The report provides an assessment of the impacts to any Important Ecological Features (IEFs) arising as a result of the proposals.
- 2.4 An initial assessment of the ecological baseline for a proposed development site and establishes whether the Site is likely to be constrained by ecology, and whether more information is needed to establish an ecological baseline and determine the potential impacts arising from development.
- 2.5 The subsequent Preliminary Ecological Appraisal Report (PEAR) is intended to give guidance to a developer and assist with the early stages of project planning and design. Where a site is not complex or constrained, and no additional ecological input is necessary, the PEAR may be sufficient and suitable to support a planning application.
- 2.6 The Biodiversity Net Gain (BNG) assessment provides an assessment of the Site's baseline biodiversity value using the Natural England (NE) Statutory Metric and associated methodologies. The assessment calculates the baseline value according to habitat data collected as part of the PEA.

3.0 RESULTS

Desk Study

3.1 The assessment uses a 2km area of search around the Site for records of protected and notable species and locally or nationally designated wildlife sites. A data search was undertaken through Telford Ecological Data Service (TEDS).

Site Context

3.2 The Site is located immediately to the north of the Village of Tilstock, c.3.6km from the town of Whitchurch. The Site is surrounded by (predominantly pastoral) farmland to the north, west and east, which is connected by mature hedgerows.

3.3 In the wider landscape habitats are similar in composition with abundant mixed-use farmland bordered by mature hedgerows.

Potential Wildlife Corridors

3.4 There are no significant wildlife corridors within immediate proximity to the Site. Mature hedgerows are likely to provide links from the Site to the surrounding farmland.

Statutory Designations

3.5 A search has been made to identify any nationally or internationally designated sites within a 5km radius. The results are shown in the below table.

Table 1: Summary of Data Search Results for Statutory Sites within 5km of the Site

Site Name	Designation	Distance from Site	Summary Interest
Prees Heath	Site of Special Scientific Interest (SSSI)	1.2km south-east	A remnant of the formerly extensive lowland heaths of north Shropshire. Situated on well drained acidic soils derived from the underlying glacial sands and gravels, the site supports a variety of heathland communities which are now scarce both in Shropshire and in the West Midlands Region. The site is especially important for its population of the nationally scarce silver-studded blue butterfly <i>Plebejus argus</i> .
Brown Moss	Special Area of Conservation (SAC), Local	1.9km north-east	Area of former heathland now largely colonised by woodland, with a series of shallow pools. The site holds marsh, swamp and fen communities associated with the pools which occupy hollows in the sand and gravel substrate. Qualifying

Site Name	Designation	Distance from Site	Summary Interest
	Nature Reserve (LNR), SSSI		species: Floating water-plantain <i>Luronium natans</i>
Midland Meres & Mosses Phase 1	Ramsar; wetland of international importance	1.9km north-east	A series of lowland open water and peatland sites set in depressions in glacial drift left by receding ice sheets. The 16 component sites include nutrient-rich water bodies (meres), associated fringing habitats of reed swamps, fen, carr and damp pasture, and floating quaking bog (schwingmoor). The wide range of resulting habitats supports numerous rare species of plants and invertebrates.
Fenn's, Whixall & Bettisfield Mosses	National Nature Reserve (NNR), SSSI, SAC	3.4km west	Internationally important peatland; raised bog. Supporting a variety of threatened species.
Midland Meres & Mosses Phase 2 (part of)	Ramsar	3.7km west	A series of 18 sites made up of nutrient-rich open water bodies (meres) with fringing habitats of reed swamp, fen, carr and damp pasture, and peatlands.
Marlot	LNR	4.6km south-west	Lowland raised mire
Greenfields	LNR	3.7km north	Herb-rich, unimproved mesotrophic grassland and broadleaved woodland.
Melverley Farm	SSSI	4.2km north-east	Herb-rich, unimproved mesotrophic grassland, ponds and hedgerows under traditional management.

3.6 Given the distance from these habitats and small scale of the development, the above designations are considered sufficiently separated from the proposed development for any potential impacts to be ruled out.

SSSI Impact Risk Zones (IRZs)

3.7 The Site lies within the IRZ for Prees Heath SSSI, Midlands Meres & Mosses Phase 1 Ramsar site and Brown Moss SSSI, however the Local Planning Authority (LPA) are not required to consult with Natural England in relation to potential impacts of residential developments.

3.8 The proposed development is unlikely to have a harmful effect on terrestrial Sites of Special Scientific Interest (SSSIs) and the Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites that they underpin.

Non-Statutory Designations

Table 2: Summary of Data Search Results for Non-statutory Sites within 2km of the Site

Site Name	Designation	Distance from Site	Summary Interest
Lot 15	Local wildlife site (LWS)	1.9km east	Area of scrubby and wooded heathland with invertebrate interest.
Steel Heath - Whitchurch	LWS	1.7km south	Complex of wet and dry heathland (Site declining / at risk)
Prees Heath (areas adjacent to SSSI)	LWS	1.7km south-east	Heathland area, some scrub
Chapel Fields Tilstock	LWS	1km south-west	Unimproved meadows.

3.9 Given the distance from these habitats and scale of the development, the above designations are considered sufficiently separated from the proposed development for any potential impacts to be ruled out.

Granted EPSM Licences

3.10 There are no European Protected Species Mitigation (EPSM) licences shown within 1km of the Site.

Mapped Ancient Woodland

3.11 No ancient woodland is mapped within 15m of the Site.

Waterbodies

3.12 Two waterbodies are located within the Red-line boundary, and a further 7 are found on mapping within 250m of the Site as shown in **Figure 2**.

'Extended' Phase 1 Habitat Survey

- 3.13 The survey was carried out on the 5th of April 2024¹ and followed the principles of Extended Phase 1 Habitat Survey methodology (JNCC, 2010). Habitats are classified according to the UK Habitat Classification System (UKHab Ltd, 2023), with secondary codes used where appropriate.
- 3.14 The survey was carried out by Alasdair Grubb BSc (Hons) ACIEEM on behalf of Cass Design. Alasdair has over 10 years of experience carrying out habitat surveys and holds a level 5 Botanical Society for Britain and Ireland (BSBI) Field Identification Skills Certificate (FISC), which certifies him as competent to undertake botanical and habitats surveys up to national vegetation classification (NVC) survey level.
- 3.15 Although carried out outside the optimal period for habitat surveys, a robust assessment of all habitats present on site was possible, allowing for a sufficiently robust assessment of the baseline ecological value of the Site to be made.
- 3.16 Sufficient time was afforded for the surveyor to carry out the survey. The survey was not constrained by poor weather.

Habitats

- 3.17 The following habitat types, described in more detail below, were identified on and directly adjacent to the Site during the 'Extended' Phase 1 Habitat Survey:
- Modified grassland
 - Bramble scrub
 - Pond
 - Hedgerows
 - Ecologically valuable line of trees
- 3.18 The habitat descriptions provided below should be read in conjunction with **Figure 5** and the photographs presented in **Appendix 3**.

Modified grassland (g4) 42

- 3.19 The majority of the Site comprises a modified grassland field. The grassland comprises typical grass and forb species that indicate nutrient enrichment: perennial rye *Lolium perenne*, Yorkshire fog

¹ This Report has been prepared during October 2024 following a visit to the Site in April 2024, and our findings are based on the conditions of the Site that were reasonably visible and accessible at that date. We accept no liability for any areas that were not reasonably visible or accessible, nor for any subsequent alteration, variation, or deviation from the Site conditions which affect the conclusions set out in this report.

Holcus lanatus, annual meadow grass *Poa annua*, creeping thistle *Cirsium arvense*, broad-leaved dock *Rumex obtusifolius*, dandelion *Taraxacum officinale* agg., broad-leaved plantain *Plantago major*, common chickweed *Stellaria media*, creeping buttercup *Ranunculus repens*, white clover *Trifolium repens* and common mouse-ear *Cerastium fontanum*. The field boundaries feature ruderal and shade tolerant species such as cow parsley *Anthriscus sylvestris*, common hogweed *Heracleum sphondylium*, ground ivy *Glechoma hederacea*, stinging nettle *Urtica dioica*, ground elder *Aegopodium podagraria*, white dead nettle *Lamium album*, hedge woundwort *Stachys sylvatica* and black horehound *Ballota nigra*.

- 3.20 The management of the field appears to feature relatively intensive grazing and / or mowing for silage; the sward structure is uniform. Species diversity was found to be 5.4 species per m² (across 5 quadrats). No significant damage to the ground was identified.
- 3.21 A single pond is present in the centre of the field, the margins of which feature vegetation consistent with the rest of the field, though creeping bent *Agrostis stolonifera* was identified.

Pond 10, 40

- 3.22 Two ponds were identified on the Site, as summarised in the table below:

Table 3: Summary of Waterbodies on Site

Name	Size (m ²)	Description	Condition assessment	Criteria passed	Criteria failed
WB1	127	Located with low-lying part of field. Depth is unknown but greater than 50cm. Marginal vegetation is consistent with adjacent field, though creeping bent is also present. Wildfowl grazing is evident.	Moderate	All except B	B
WB2	401	Surrounded by a line of mature alder <i>Alnus glutinosa</i> trees and bramble scrub. The trees shade c.70% of the pond. Duckweed <i>Lemna</i> sp. covers c.40% of the open water. Marginal and emergent species are visible within the pond: floating sweet grass, brooklime, soft rush <i>Juncus effusus</i> , yellow flag iris <i>Iris pseudacorus</i> and greater willowherb <i>Epilobium hirsutum</i> .	Moderate	A, D, E, F, G, H	B, C, I

Bramble Scrub (h3d)

- 3.23 A small patch of dense bramble *Rubus fruticosus* agg. scrub is present on the eastern edge of WB2. This scrub is fenced off from grazing in the adjacent field. Tall ruderal species such as greater willowherb and stinging nettle are present within the bramble.

Native Hedgerows (h2)

- 3.24 Five hedgerows were defined at the field boundary, as summarised in the Table below:

Table 4: Summary of Hedgerows on Site

Name	Length (m)	Hedge type	Description	Species
H1	71	Native hedgerow with trees	5x2m Trimmed laterally but not vertically. Semi-mature sycamore trees present.	Yew, hawthorn, blackthorn, holly Bramble, ivy.
H2	82	Species-rich native hedgerow	5x2m. Trimmed laterally but not vertically. Canopy gaps present at western end but only make up c.5% of total length.	Hawthorn, holly, hazel, elder, blackthorn, pedunculate oak.
H3	105	Species-rich native hedgerow with trees associated with bank / ditch	3x2m. Trimmed. Field drainage ditch present on northern side, but unlikely to hold water for more than 4 months of the year. 3 mature trees (2 pedunculate oak, 1 sycamore), but not every 30-50m.	Hawthorn, holly, hazel, blackthorn, elder, elm, pedunculate oak, sycamore, bramble.
H4	91	Species-rich native hedgerow	2x2m. Trimmed.	Holly, hawthorn, hazel, field rose, blackthorn.
H5	123	Native hedgerow	2x2m. Trimmed. Fewer than 5 species per 30m, but no dominant species.	Hawthorn, elm, sycamore, holly, blackthorn, ash.

Ecologically Valuable Line of Trees 34

- 3.25 A line of mature alder trees are present surrounding WB2. The canopy is continuous. Trees feature ecological niches (such as dead limbs, ivy cover). A road is adjacent to the trees on the western side.

Protected, BAP and other Notable Fauna and Flora

3.26 The following section discusses only the groups and species that could be reasonably expected to be found on the type of habitats present on, or adjacent to, the Site.

Amphibians

3.27 Numerous records were returned for common frog and smooth newt were returned within 2km. Two records were returned of great crested newt (GCN). The closest GCN record is 1.7km north of the Site from 2015.

3.28 Terrestrial habitats on Site are mostly of poor value to amphibians; the modified grassland will support a relatively low diversity and density of invertebrates. The hedgerows, line of trees and scrub will likely offer foraging and sheltering opportunities. The hedgerows will provide connectivity to the wider area.

3.29 To determine the status of GCN in the on-site waterbodies and waterbodies within 250m environmental eDNA analysis was undertaken on accessible waterbodies. This survey confirmed the presence of great crested newt in WB8 only.

Bats

3.30 Records were returned of common pipistrelle, soprano pipistrelle, noctule, Daubenton's, whiskered and brown long-eared bat. The closest record is of a common pipistrelle within 200m of the Site from 2002.

3.31 The boundary hedgerows and associated mature trees are likely to provide value to local populations of foraging / commuting bats. The majority of the Site is of low value to bats however as the modified grassland is unlikely to support abundances of invertebrates. The Site is assessed as being of 'low value' to foraging / commuting bats.

3.32 The mature trees within Hedges 1 and 3 and Line of Trees 1 were subjected to a Ground Level Tree Assessment (GLTA) with respect to their suitability to support roosting bats. The majority of trees were found not to contain features suitable for use by roosting bats. However, a single mature pedunculate oak (Target note 3) features 4 small branch cavities and a section of flaking bark on the southern aspect, and a group of 8 alder trees (Target note 4) feature dense ivy *Hedera helix* growth which may present a potential roosting feature (PRF) in itself or conceal other PRFs.

Birds

- 3.33 Records were returned of common and widespread bird species, including numerous listed as species of conservation concern.
- 3.34 The habitats on Site have the potential to support common and widespread species of nesting birds: grassland, scrub, hedgerows and trees.
- 3.35 Though a targeted bird survey was not undertaken during the survey the following birds were identified singing on or immediately adjacent to the Site: dunnock *Prunella modularis*, blackbird *Turdus merula*, skylark *Alauda arvensis*, chiffchaff *Phylloscopus collybita*, starling *Sturnus vulgaris* and goldfinch *Carduelis carduelis*.
- 3.36 Dunnock is listed as an Amber species on the Birds of Conservation Concern 5 List, whereas skylark and starling are listed as Red list species. Skylark, starling and dunnock are also listed in Section 41 of the NERC Act 2006 (as species of principle importance in England).

Badgers

- 3.37 Multiple records of badger *Meles meles* were returned from within 2km of the Site.
- 3.38 The hedgerows and grassland field offer suitability for foraging and commuting badgers.
- 3.39 No evidence of badgers was identified on site or within 30m of the site boundary. A single mammal hole was identified at the northern field boundary; however the hole was assessed as too small to be used by badgers, and evidence of rabbit *Oryctolagus cuniculus* droppings was identified at the entrance; this is assessed as a rabbit burrow rather than a badger sett.

Water Vole & Otter

- 3.40 No records of otter were returned from 2km.
- 3.41 14 records of water vole were returned, the closest of which is 235m to the west of the site from 2002. A more recent record of water vole is 330m to the west of the Site from 2015.
- 3.42 The ditch associated with Hedge 3 was mostly dry at the time of survey; this ditch is of low value to water voles and otters. The on-site waterbody is not linked to other water bodies, is highly unlikely to support fish populations and does not feature significant aquatic vegetation.
- 3.43 Despite local records of water vole, no habitat of value to water vole or otter is found on Site and the likely absence of these species can be reasonably concluded.

Reptiles

- 3.44 No records of reptiles were returned from 2km.
- 3.45 The modified grassland is unlikely to support diversity or abundances of invertebrate prey for reptiles. The hedgerows may offer connectivity to the wider landscape, however given the lack of reptile records close to the Site, and poor value of habitats present onsite, it is not considered likely to support reptiles. As such, this group can be reasonable discounted from the requirement for further survey work or the requirement for specific mitigation.

Hedgehog

- 3.46 A single record of hedgehog was returned from within 2km in 2015. Residential gardens, hedgerow, woodland and scrub in the local area have the potential to support this species.

Invasive Non-Native Species (INNS)

- 3.47 No INNS were recorded on or immediately adjacent to the site.

4.0 BIODIVERSITY NET GAIN

Baseline

- 4.1 The assessment of the baseline Biodiversity Units (BUs) for the Site is based on the habitats as presented above and in **Figure 5**. An assessment is made of the baseline for area BUs and linear BUs - the Site supports no watercourses.
- 4.2 Although the Site survey was undertaken at a time of year when all plants are not readily identifiable, the habitats present were able to be fully condition assessed.
- 4.3 The condition assessments of the baseline habitats are included within the tables below, showing which criteria are passed and failed for each habitat.
- 4.4 The habitats found on Site are not currently assessed as being ‘Strategically Significant’.

Table 5: Baseline Area Habitat Summary

Habitat Type	Area (Ha)	Distinctive-ness	Condition assessment	Criteria passed	Criteria failed	Strategic Significance	Total Habitat Units
Modified grassland	4.0963	Low	Poor	All except A and B	A, B	Low	8.19
Bramble Scrub	0.0109	Medium	N/A	N/A	N/A	Low	0.04
Ponds (Non-priority)	0.0481	Medium	Moderate	All except B	B	Low	0.38
Total	4.16						8.62

Table 6: Baseline Linear Habitat Summary

Habitat Type	Length (km)	Distinctive-ness	Condition	Criteria passed	Criteria failed	Strategic Significance	Total Habitat Units
Native Hedgerow with trees	0.071	Medium	Good	All	N/A	Low	0.85
Species-rich native hedgerow	0.187	Medium	Good	All	N/A	Low	2.24
Native Hedgerow	0.214	Low	Good	All	N/A	Low	1.28
Ecologically valuable line of trees	0.069	Medium	Moderate	A, B, D, E	C	Low	0.55
Total	0.54						4.93

5.0 DISCUSSION AND RECOMMENDATIONS

Designations

- 5.1 Given the distance from statutorily protected sites and scale of the development, the proposals are unlikely to have an adverse effect on any statutory or non-statutory designated sites.

Habitats

- 5.2 The majority of the Site comprises modified grassland which is of limited ecological value and does not represent a constraint to development (notwithstanding the value attributed to it through BNG).
- 5.3 Hedgerow is a priority habitat and has been retained and protected through development where possible. Where loss cannot be avoided this loss has been suitably mitigated through the incorporation of native species rich native hedgerow planting.
- 5.4 WB1 will be lost to facilitate the development, to be replaced by a Sustainable Urban Drainage System. This feature has been designed to maximise biodiversity value and will include areas of permanent standing water which will offer ecological value over and above the current Site. The marginal areas will be seeded with appropriate seed mixes to suit the marginal and inundation zones.

Biodiversity Net Gain

- 5.5 The project will be required to demonstrate delivery of a minimum 10% net gain in biodiversity under the Environment Act (2021).
- 5.6 The Site supports **8.62** habitat Biodiversity Units (BUs) and **4.93** linear BUs.
- 5.7 The landscape proposals have been developed with significant liaison between the landscape architect and ecologist. This has led to the development of proposal which maximises the biodiversity value of the Site as far as is possible within the context of a residential Site.
- 5.8 A full BNG assessment will be required to determine the Biodiversity Net Gain score. If, following the full BNG assessment, a net loss is anticipated, then one of or a combination of the below will be required to achieve BNG –
- Management of land local to the Site to generate BUs².
 - Purchase of BUs from a local provider.

² A minimum management term of 30 years will be required.

- Purchase of Statutory Credits from the government³.

5.9 A 'Biodiversity Gain Plan' will be required to be submitted which demonstrates how the development will achieve 10% BNG, including the full BNG assessment and a Habitat Management & Monitoring Plan (HMMP) which details the methodology for the management and monitoring of the created habitats for a minimum of 30 years. The Biodiversity Gain Plan will be submitted and approved by the LPA prior to the commencement of development to discharge the statutory BNG condition applied to the permission.

Protected and Notable Fauna

Bats

5.10 The Site is assessed as 'low' potential for commuting and foraging bats, however the key features of the Site are the boundary hedgerows. These are due to be retained by the development proposals; as such, the impact on foraging and commuting bats is not considered to be significant. If any external lighting is to be used either during construction or the operational phase of the development, lighting should be directed away from boundary features and offsite habitats.

5.11 It is recommended that a lighting plan is produced as a condition of any granted permission which demonstrates how the lighting will be designed to maintain the value of boundary features through development.

5.12 The trees assessed as containing features which may support roosting bats are out with the site boundary and are not due to be affected by the development proposals. As such, no further survey work or mitigation measures are currently required. However, if the proposals change to include works to the trees highlighted, they should be subjected to further aerial assessment by a licenced bat surveyor to further determine their suitability to support roosting bats.

Amphibians

5.13 The two waterbodies on Site offer suitability for breeding great crested newt and other amphibians, and GCN presence is known within the local area.

5.14 Further assessment of these ponds was undertaken in the form of eDNA sampling, the results of which are presented in a separate report. This survey confirmed the presence of great crested newt in WB8 only.

³ Purchase of credits is considered a last resort and for this to be pursued it must have been demonstrated that other options are not viable.

- 5.15 The project will be registered on the Natural England led District Level Licence (DLL) Scheme, and as such any potential impacts on great crested newt will be mitigated through the creation of suitable mitigation off-site.

Badger

- 5.16 The Site supports habitats suitable for foraging and commuting badgers, however no evidence of badgers was identified during the site walkover.
- 5.17 Given the likely length of time between the planning application and commencement on Site, an updated walkover survey to search for badger activity is recommended prior to commencement.
- 5.18 Reasonable avoidance measures should be detailed within a Construction Environmental Management Plan (CEMP) to protect any badgers using the site in a transitory capacity during the construction phase. This can be secured by an appropriately worded planning condition.

Birds

- 5.19 Three species of conservation concern were identified using the Site during the walkover survey (skylark, starling and dunnock). Given the small scale of the development within the wider landscape, it is not considered that the development will have a significant effect on these species or any other bird species which may be using the site. Any negative effect can be suitably mitigated by retention and protection of retained hedgerow.

Opportunities

- 5.20 Potential ecological opportunities at the Site include:
- Creation of ecologically valuable habitats within available Public Open Space (POS).
 - Creation of new hedgerow, ponds and grassland within developed site
 - Maintenance of connectivity through residential gardens for hedgehog and creation of 'hedgehog highways'⁴.
 - Installing bat roosting or bird nesting features on or integral to new buildings.
- 5.21 A Biodiversity Enhancement and Management Plan (BEMP) or similar should be produced to detail how the Ecological value of the Site will be maximised. This can be delivered through a condition of planning.

⁴ See hedgehogstreet.org

Figure 2: Ponds within 250m



Figure 3: Statutory designations within 5km

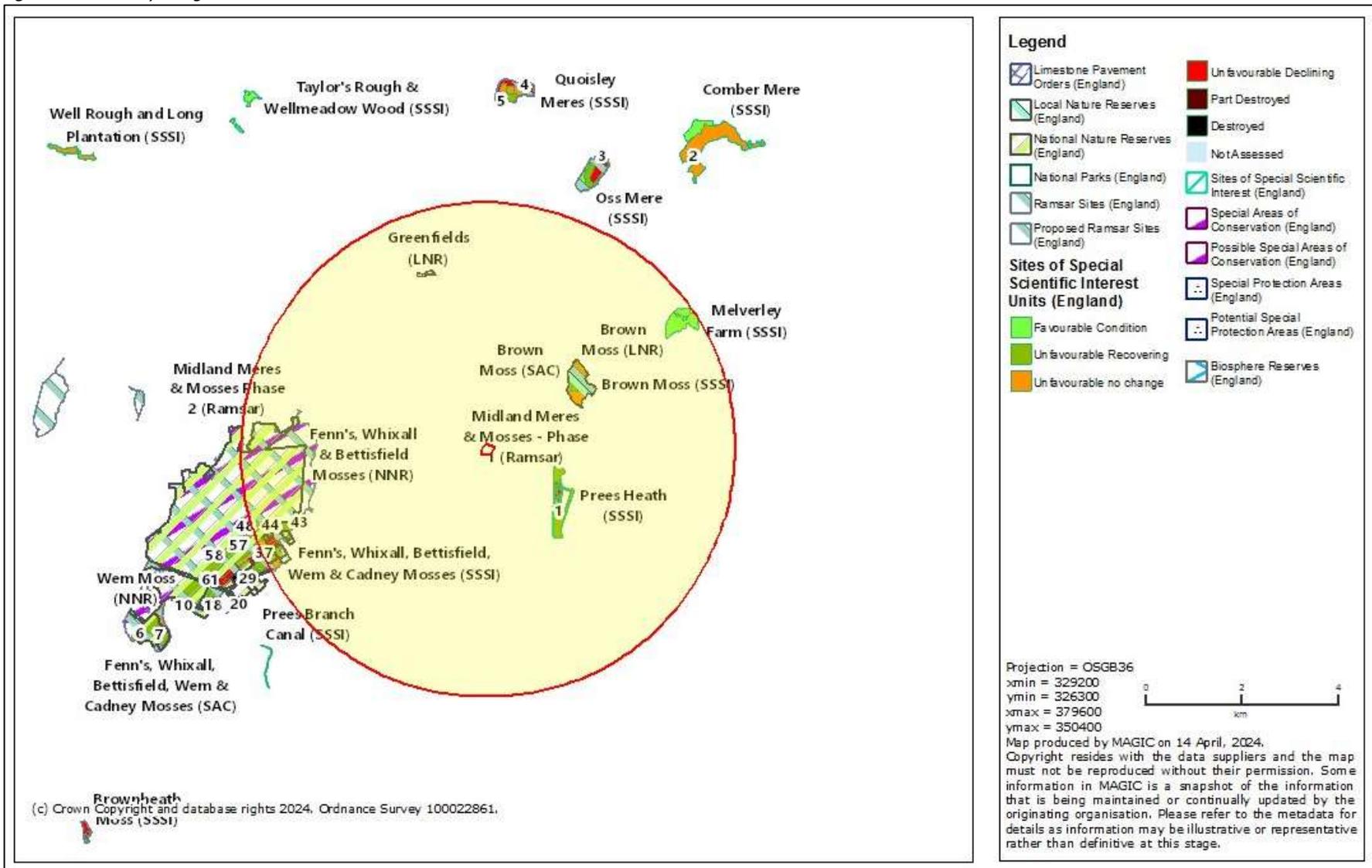


Figure 4: Non-statutory designations within 2km

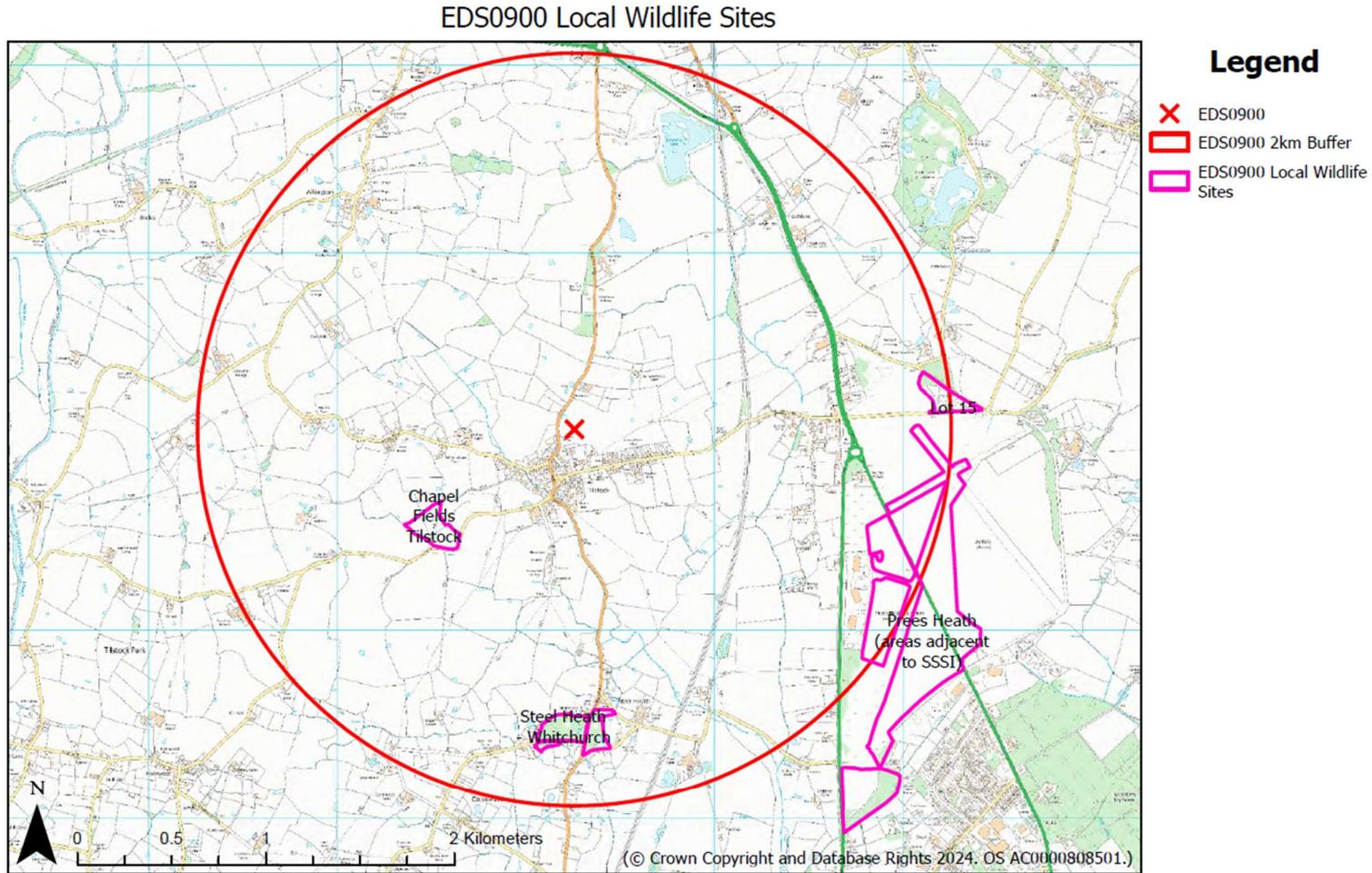
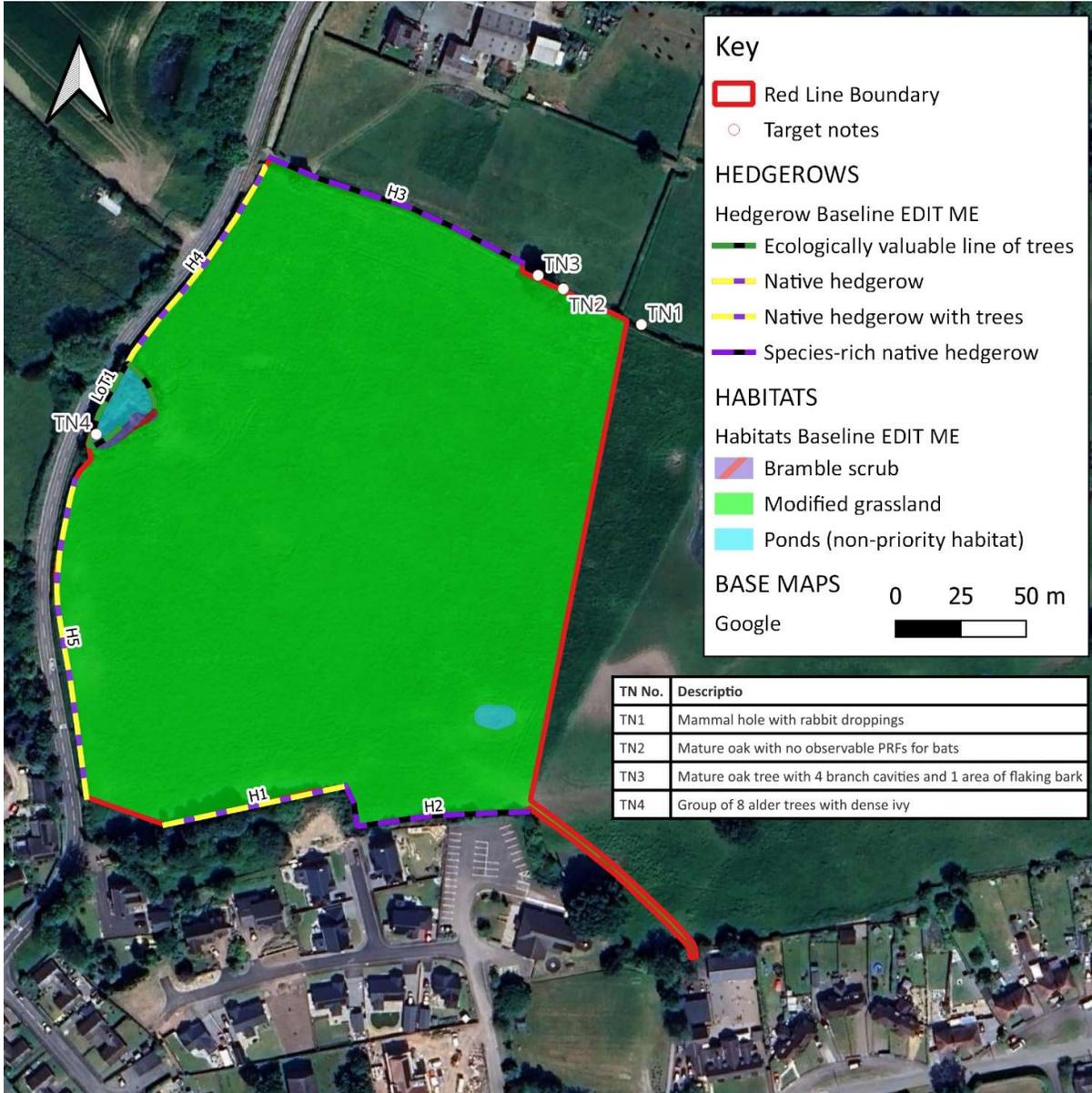


Figure 5: Habitat Features



APPENDICES

APPENDIX 1 PROPOSED LANDSCAPE PLAN (REF P24-1425_EN_06)



5m minimum width of woodland planting within 10m wide landscape buffer. Area to include a mixture of understorey shrub planting and standard trees, with areas of native shrub planting and long-mown grass meadow, and scattered larger-stature extra heavy standard trees around the boundary.

Existing trees to be retained within the site layout, with development offset from the site boundary and existing boundary vegetation.

Semi-formal / Village Green style central LAP with informal play features such as logs, boulders and mounds. Single-species native hedgerows frame the area of public open space and provides a defensible boundary to the streetscape. Ornamental shrub and herbaceous planting with focal trees to the periphery provides an attractive outlook for adjacent residents.

10m minimum width of woodland planting within 15m wide landscape buffer, to include a mixture of understorey shrub planting and standard trees. Flowering lawn and wet meadow grass planting to drainage swales and scattered extra heavy standard trees.

Community orchard set within flowering lawn meadow grass, to include fruit tree species of local provenance to enhance sense of place, create opportunities for informal recreation, social cohesion and education.

Naturalistic style LEAP with timber play equipment and seating, and natural play features such as logs and boulders. Ornamental shrub and herbaceous planting with focal trees to the periphery provides an attractive setting to the play space, and gateway into the development from the new footpath.

Marginal and aquatic planting to the banks of permanent water body will provide an attractive outlook for residents and create wetland habitats for biodiversity. Wet meadow grassland suitable for seasonally-wet soils seeded to the wider attenuation basin, creating habitat opportunities and seasonal interest to the area of open space.

Flowering lawn verges with regular street trees create a strong streetscene, whilst providing seasonal interest and biodiversity value

Native shrub and tree planting to bolster the existing vegetation to the southern boundary.

Replacement native hedgerow planting adjacent to Tilstock road, reinforced with scattered native tree planting will replicate the existing view from along the road and soften views of new built form.

KEY		
	Application boundary	
	Existing vegetation	
	- Pink dashed line indicates root protection area	
	- As per Tree Survey Plan by FPCR (ref 12501-T-01_A)	
	Existing vegetation to be removed	
	- As per Tree Retention Plan by FPCR (12501-T-02 Rev A)	
	Internal visibility splay	
	- As per Access Proposals by DLP Planning Ltd (SH5037-10PD-002 Proposed Site Layout)	
	Visibility splay to access road	
	- As per Access Proposals by DLP Planning Ltd (SH5037-10PD-001 Site Access)	
	Banks to attenuation basin	
	- As per Drainage Proposals by Eastwood Consulting Engineers (48898-ECE-XX-XX-DR-C-0002_PD1 - Drainage Layout)	
	Proposed native woodland with native shrub understorey	
	Proposed feature tree	
	Proposed native tree	
	Proposed street tree	
	Proposed orchard tree	
	Proposed native hedgerow	
	Proposed single-species hedgerow	
	Proposed native shrub	
	Proposed ornamental shrub, herbaceous and grass planting	
	Proposed marginal / aquatic planting	
	Proposed amenity grass / mown verges	
	Proposed long mown grass meadow	
	Proposed flowering lawn	
	Proposed wet meadow grassland to SuDS basins	
	Proposed pond edge mixture to banks of permanent water edge	
	Proposed amenity grass to play areas / village green	
	Proposed amenity grass to rear gardens	
	Proposed amenity grass to front gardens	
	Proposed planting to front gardens	
	- See P24-1425_EN_010 Detailed Soft On-plot Landscape Proposals	
	Proposed bulb planting	
	Proposed 2m width gravel footpath	
	Proposed 2-2.5m width macadam footpath	
	Proposed wet pour play safety surfacing	
	Proposed earth mounding	
	- Gradient to be max 1:3 with smooth flowing contours	
	Proposed play equipment with impact attenuating play surfacing to fall zone	
	Proposed timber picnic benches and seating	
	Proposed litter and dog waste bins	
	Proposed timber knee rails	
	Proposed anti-trap bow-top fencing to play areas	
	Proposed bow-top fencing SuDS basin - subject to engineer review	
	- See P24-1425_EN_010 Detailed Soft On-plot Landscape Proposals for planting to frontages.	
	- See P24-1425_EN_07A Detailed POS Hard and Soft Landscape Proposals for details of planting proposals to POS, play equipment, boundary treatments, street furniture and surfacing specifications.	

LAND AT TILSTOCK ROAD, TILSTOCK - LANDSCAPE MASTERPLAN

APPENDIX 2 METHODOLOGY

Ecological Data Search

- A2.1 The aim of the ecological data search is to collate existing ecological records for the Site and adjacent areas. Obtaining existing records is an important part of the evaluation process, as it provides additional information that may not be apparent during a site survey.
- A2.2 Records of notable species supplied from a 2km area of search by Staffordshire Ecological Record (SER) are used to inform this appraisal.
- A2.3 Records of important statutory and non-statutory sites designated for their nature conservation value within 10km of the Site were also searched for on the Multi-Agency Geographic Information for the Countryside (MAGIC)⁵.
- A2.4 In addition, Habitats of Principle Importance (HoPI) and Species of Principle Importance (SoPI) listed under Section 41 (S41) of the NERC Act, as well as Habitat Action Plans (HAPs) and Species Action Plans (SAPs) were consulted.

'Extended' Phase 1 Habitat Survey

- A2.5 Phase 1 habitat survey methodology (JNCC, 2010). This involves walking the site, mapping and describing different habitats (for example: woodland, grassland, scrub). The survey method was "Extended" in that evidence of fauna and faunal habitat was also recorded (for example droppings, tracks or specialist habitat such as ponds for breeding amphibians). This modified approach to the Phase 1 survey is in accordance with the approach recommended by the Guidelines for Baseline Ecological Assessment (IEA, 1995) and Guidelines for Preliminary Ecological Appraisal (CIEEM 2017).

Faunal Appraisal

- A2.6 This section first looks at the types of habitats found on Site or within the sphere of influence of potential development, then considers whether these could support protected, scarce, or NERC Act 2006 Section 41 species (referred to collectively as 'notable species').
- A2.7 Records of notable species supplied from a 2km area of search by Staffordshire Ecological Record (SER) are used to inform this appraisal.
- A2.8 We discuss further only notable species or groups which could be a potential constraint due to the presence of suitable habitat and their presence (or potential presence) in the wider area. We screen out and do not present accounts of notable species or groups which do not meet these criteria – in some cases it may be necessary to explain this reasoning.

Bats

- A2.9 Bat roosting potential is classified according to the following criteria set out below, taken from the Bat Conservation Trust Good Practice Guidelines (2023).

⁵ Magic.defra.gov.uk. (2014). Magic. [online] Available at: <http://magic.defra.gov.uk/> [Accessed October 2023].

Bat Roosting Suitability of Buildings and Trees

Suitability	Criteria
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions, and/or suitable surrounding habitat to be used on a regular basis or by a larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A structure or tree with one or more potential roost sites that could be used due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protections, conditions and surrounding habitats.

Evaluation

- A2.10 In evaluating the Site, the ecologist will take into account a number of factors in combination, such as:
- the baseline presented above,
 - the site's position in the local landscape,
 - its current management and
 - its size, rarity or threats to its integrity.
- A2.11 There are a number of tools available to aid this consideration, including established frameworks such as Ratcliffe Criteria or concepts such as Favourable Conservation Status. Also of help is reference to Biodiversity Action Plans in the form of the Local BAP and Section 41 of the NERC Act (2006) to determine if the site supports any Priority habitats or presents any opportunities in this respect.
- A2.12 The assessment of impacts considers the generic development proposals from which potential effects include:
- Vegetation and habitat removal
 - Direct effects on significant faunal groups or protected species
 - Effects on adjacent habitats or species such as disturbance, pollution and severance
 - Operational effects on wildlife such as noise and light disturbance

Biodiversity Net Gain Statutory Metric (BNG)

- A2.13 A Biodiversity Net Gain (BNG) assessment involves making a comparison between the biodiversity value of habitats present within a site prior to development (i.e., the 'baseline') and the predicted biodiversity value of habitats following the completion of the development (i.e., 'post-development'). The comparison is made in terms of 'biodiversity units', with a 'biodiversity metric' providing the mechanism to allow biodiversity values to be calculated and compared.
- A2.14 Biodiversity Metric calculates the overall loss or gain of biodiversity for development projects by assessing the distinctiveness (i.e., type of habitat and its value), condition, extent, and strategic significance of habitats on

site pre- and post-development. To achieve biodiversity net gain, the biodiversity unit score must have a post-development score higher than the baseline score.

- A2.15 The metric assesses and generates separate outputs for area-based habitats (measured in habitat units), linear based habitats including hedgerows (measured in hedgerow units) and watercourses (measured in watercourse units). A development cannot claim to achieve an overall net gain unless this is predicted across all area-based and linear assessments (where applicable).
- A2.16 When calculating the post-development biodiversity units, the metric includes a series of standard ‘risk multipliers’ to account for the inherent risk of creating and restoring habitats, the time taken to establish habitats and the location of the mitigation in relation to the habitats lost on site. The risk multipliers have the effect of reducing the value of the proposed habitats, which means larger areas, habitats of higher distinctiveness, and / or condition are required to achieve comparable gains in Biodiversity Units.

Condition

- A2.17 The condition of each habitat is assessed using the methods set out in the Statutory Biodiversity Metric Condition Assessment methodology.
- A2.18 This approach assesses a habitat based on a set of broad condition criteria depending on the habitat type being assessed.
- A2.19 Some habitats are allocated a fixed condition score in the metric. These habitats do not require a condition assessment for the metric to be completed. It may still be appropriate to survey these habitats for species or other environmental importance.
- A2.20 There is a separate condition assessment methodology for watercourses as set out in the watercourse unit module.

Condition Category	Condition Score Applied in the Metric
Good	3
Fairly Good	2.5
Moderate	2
Fairly Poor	1.5
Poor	1
Condition Assessment N/A	1
N/A - Other	0

Strategic Significance

- A2.21 Strategic significance is the local significance of the habitat based on its location and habitat type. A strategic significance category for each individual habitat parcel both at baseline and at post-intervention is assigned based on published plans, strategies or policies which are relevant to the habitat’s location.

Strategic Significance Category	Score Applied in the Metric	Description
High	1.15	Where the location has been identified within a local plan, strategy or policy as being ecologically important for the specific habitat type or where

Strategic Significance Category	Score Applied in the Metric	Description
		that habitat has been identified as being locally ecologically important.
Medium	1.10	Where there is no relevant plan, strategy or policy in place, professional judgement may be used to justify the use of the medium strategic significance category. This judgement should consider the importance of that habitat in providing a linkage between other strategic locations.
Low	1.0	If the habitat is not included in local plans, strategy or policy, and there is no evidence to suggest that the habitat is of medium strategic significance.

Risk Multipliers

A2.22 The metric applies three risk multipliers to post-development enhancement and creation interventions:

- difficulty of creation or enhancement
- temporal risk
- spatial risk

Difficulty of Creation or Enhancement

A2.23 This multiplier represents the uncertainty in the effectiveness of techniques to create or enhance habitats. The metric automatically assigns the delivery risk and score for each habitat, based on its habitat intervention category (creation or enhancement).

A2.24 Despite this partial accounting for risk in the metric, proposals must still be based on sound ecological judgement and should consider the ecological context of the change.

Temporal Risk

A2.25 The temporal risk multiplier accounts for the average time lag, measured in years, between the start of habitat creation or enhancement works and the target outcome. This is known as ‘time to target condition’. This multiplier is automatically applied by the metric and changes depending on data input.

Spatial Risk

A2.26 Where a project cannot achieve a net gain in biodiversity units on-site, then off-site units can be used. All off-site data should be entered into the off-site sheets of the metric.

A2.27 The spatial risk multiplier reflects the relationship between the location of on-site biodiversity loss and the location of off-site habitat compensation. It affects the number of biodiversity units provided to a project by penalising proposals where off-site habitat is located at distance from the impact site.

APPENDIX 3 PLANNING POLICY AND SUMMARISED FLORA AND FAUNA LEGISLATION

National Planning Policy

National Planning Policy Framework, 2023

- A3.1 The National Planning Policy Framework⁶ (NPPF) was published in March 2012. Section 11 (outlined below) of the NPPF, 'Conserving and Enhancing the Natural Environment', effectively replaces former Planning Policy Statement 9: Biodiversity and Geological Conservation. However, Government Circular 06/2005⁷ - Biodiversity and Geological Conservation: Statutory Obligations and Their Impact within the Planning System, remains valid and is referenced within the NPPF.
- A3.2 The NPPF encourages the planning system to contribute to and enhance the natural and local environment. This should be achieved by:
- *“protecting and enhancing valued landscapes, geological conservation interests and soils;*
 - recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
 - maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
 - minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures
 - preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
 - remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate”.
- A3.3 The NPPF also stipulates that Local Planning Authorities (LPAs), when determining planning applications, should seek to conserve and enhance biodiversity, by applying the following principles:
- “if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused
 - development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest”.
 - development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional

⁶ Department of Communities and Local Government. (2023). National Planning Policy Framework

⁷ Department of Communities and Local Government. (2005). Circular 06/05: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.

reasons and a suitable compensation strategy exists; and

- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.”

National Planning Practice Guidance, 2023

- A3.4 The Government’s National Planning Practice Guidance⁸ (NPPG) is intended to provide guidance to local planning authorities and developers on the implementation of the planning policies set out within the NPPF. The guidance of most relevance to ecology and biodiversity is the Natural Environment Chapter, which explains key issues in implementing policy to protect biodiversity, including local requirements.

UK Post-2010 Biodiversity Framework

- A3.5 The Environment Departments of all four governments in the UK work together through the Four Countries Biodiversity Group. Together they have agreed, and Ministers have signed, a framework of priorities for UK-level work for the Convention on Biological Diversity. Published on 17 July 2012, the 'UK Post-2010 Biodiversity Framework'⁹ covers the period from 2011 to 2020. This now supersedes the UK Biodiversity Action Plan (UK BAP)¹⁰. However, many of the tools developed under UK BAP remain of use, for example, background information about the lists of priority habitats and species. The lists of priority species and habitats agreed under UK BAP still form the basis of much biodiversity work in the countries.
- A3.6 Although the UK Post-2010 Biodiversity Framework does not confer any statutory legal protection, in practice many of the species listed already receive statutory legal protection under UK and / or European legislation. In addition, the majority of Priority national (English) BAP habitats and species are now those listed as Habitats of Principal Importance (HoPI) and Species of Principal Importance (SoPI) in England listed under Section 41 (S41) of the NERC Act 2006. For the purpose of this report, habitats and species listed under S41 of the NERC Act are referred to as having superseded the UK BAP. All public bodies have a legal obligation or 'biodiversity duty' under Section 40 of the NERC Act 2006 to conserve biodiversity by having particular regard to those species and habitats listed under S41.

Local Policy

- A3.7 At a local level, consideration is given to CS17 (Environmental Networks) in the Shropshire Council Adopted Core Strategy (March 2011).

Guidance

Biodiversity 2020: A strategy for England’s wildlife and ecosystem services

- A3.8 In October 2010, over 190 countries signed an historic global agreement in Nagoya, Japan to take urgent and effective action to halt the alarming global declines in biodiversity. This agreement recognised just how important it is to look after the natural world. It established a new global vision for biodiversity, including a set of strategic goals and targets to drive action. England’s response to this agreement was the publication of '*Biodiversity 2020: A strategy for England’s wildlife and ecosystem services*'¹¹. The mission for this strategy is:

“to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.”

BS 42020: 2013 Biodiversity: Code of Practice for Planning and Development

⁸ Department for Communities and Local Government. (2023). National Planning Practice Guidance. DCLG, London.

⁹ JNCC and DEFRA (on behalf of the Four Countries' Biodiversity Group). (2012). UK Post-2010 Biodiversity Framework.

¹⁰ HMSO. (1994) Biodiversity The UK Action Plan.

¹¹ Defra. (2011) Biodiversity 2020: A strategy for England’s wildlife and ecosystem services.

- A3.9 The UK commitment to halt overall loss of biodiversity by 2020 in line with the European Biodiversity Strategy and UN Aichi targets¹², is passed down to local authorities to implement, mainly through planning policy. To assist organizations affected by these commitments, BSI has published BS 42020 which offers a coherent methodology for biodiversity management.
- A3.10 This British Standard sets out to assist those concerned with ecological issues as they arise through the planning process in matters relating to permitted development and activities involved in the management of land outside the scope of land use planning, which could have site-specific ecological implications.
- A3.11 The standard has been produced with input from a number of organisations including the Chartered Institute of Ecology and Environmental Management (CIEEM) and the Association of Local Government Ecologists (ALGE) and provides:
- A3.12 Guidance on how to produce clear and concise ecological information to accompany planning applications;
- A3.13 recommendations on professional ethics, conduct, competence and judgement to give confidence that proposals for biodiversity conservation, and consequent decisions/actions taken, are sound and appropriate; and
- A3.14 direction on effective decision-making in biodiversity management a framework to demonstrate how biodiversity has been managed during the development process to minimize impact.

Legislation

- A3.15 Specific habitats and species receive legal protection in England under various pieces of legislation, including:
- The Conservation of Habitats and Species Regulations 2017¹³;
 - The Wildlife and Countryside Act (WCA) 1981 (as amended)¹⁴;
 - The Natural Environment and Rural Communities Act 2006¹⁵;
 - The Hedgerow Regulations 1997¹⁶;
 - The Protection of Badgers Act 1992¹⁷; and
 - Wild Mammals (Protection) Act 1996¹⁸
- A3.16 Further details of legislation in respect of legally protected and notable flora and fauna of relevance to the Site are provided below.

Flora

- A3.17 Certain wild plants are protected under the WCA 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. In summary, the legislation prohibits the collecting or cutting of certain wild plants, in addition to the picking, uprooting, destroying, selling or transporting of such wild plants.
- A3.18 The legislation also prohibits the uprooting of any wild plant, unless the uprooting is carried out by the owner or occupier of the land on which the plant is growing, or by someone having their permission to do so, or unless the action is authorized in writing by the appropriate local authority. It is a defence if the damage done to a

¹² <https://www.cbd.int/sp/targets/>

¹³ HMSO (2017) The Conservation of Habitats and Species Regulations 2017

¹⁴ HMSO (1981) 'Wildlife and Countryside Act 1981 (as amended)'

¹⁵ ODPM (2006) 'Natural Environment and Rural Communities Act (2006)'

¹⁶ ODPM (1997) 'The Hedgerow Regulations'

¹⁷ ODPM (1992) 'The Protection of Badgers Act'

¹⁸ HMSO. (1996). Wild Mammals (Protection) Act.

protected plant is the result of an otherwise lawful action and could not reasonably have been avoided.

- A3.19 A number of non-native invasive species are also listed under the WCA 1981 (as amended). Under the Act it is an offence to plant or otherwise cause the species to grow in the wild. In addition, any soil or plant material containing these species is likely to be classed as controlled waste.

Amphibians

- A3.20 Common species of amphibian (smooth newt *Lissotriton vulgaris*, palmate newt *L. helveticus*, common frog *Rana temporaria* and common toad *Bufo bufo*) are partially protected by the WCA 1981. This prohibits the trade (i.e. sale, barter, exchange, transporting for sale and advertising to sell or to buy) of these species.
- A3.21 Great crested newts *Triturus cristatus* are protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and the WCA 1981 (as amended). In summary, taken together, it is an offence to deliberately, intentionally or recklessly:
- Kill, injure or capture a great crested newt;
 - Disturb great crested newts in such a way as to be likely significant to affect:
 - the ability of any significant group of great crested newts to survive, breed, or rear / nurture their young; or
 - the local distribution of great crested newts;
 - Damage or destroy any breeding or resting place used by great crested newts; or
 - Obstruct access to any place used by great crested newts for shelter or protection and disturbing great crested newts while occupying such as place.

Badger

- A3.22 The Protection of Badgers Act, 1992 aims to protect badgers meles from persecution, rather than being a response to an unfavourable conservation status. As well as protecting the animal itself, the 1992 Act makes the intentional or reckless destruction, damage, or obstruction of a badger sett an offence. A sett is defined as “any structure or place which displays signs indicating current use by a badger”. In accordance with Natural England guidance, ‘current use’ is not synonymous with current occupation¹⁹. In addition, the intentional elimination of sufficient foraging area to support a known social group of badgers may, in certain circumstances, be construed as an offence by constituting ‘cruel ill treatment’.

Bats

- A3.23 In summary, all UK bat species are protected by the Conservation of Habitats and Species Regulations 2017 and by the WCA 1981 (as amended). Taken together it is an offence to deliberately, intentionally or recklessly:
- Kill, injure or capture a bat;
 - Disturb bats in such a way as to be likely significant to affect
 - the ability of any significant group of bats to survive, breed, or rear / nurture their young; or
 - the local distribution of that species;
 - Damage or destroy any breeding or resting place used by bats; or

¹⁹ Natural England (2009): ‘Guidance on ‘Current Use’ in the definition of a Badger Sett’. Natural England

- Obstruct access to any place used by bats for shelter or protection and disturbing bats while occupying such as place.

Birds

- A3.24 The level of protection afforded to birds under the law varies from species to species. A few game and pest species may lawfully be hunted and killed, usually under licence, whilst the rarest species are listed on Schedule 1 of the WCA 1981 and are protected by special penalties for offences.
- A3.25 All of the native bird species of Britain are additionally covered by the European Union (EU) Directive on the Conservation of Wild Birds 2009²⁰ ('The Birds Directive'). The Birds Directive applies to all wild birds, their eggs, nests and habitats, and provides for the protection, management and control of all species of birds naturally occurring within each member state of the European Union. It requires the UK to take measures to ensure the preservation of sufficient diversity of habitats to maintain populations of all wild birds at ecologically and scientifically sustainable levels. The requirements of the Birds Directive are implemented in the UK primarily through the WCA 1981 (as amended) and Conservation of Habitats and Species Regulations 2017.
- A3.26 Statutory protection is given to all nesting birds in the UK under the WCA 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird, take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition to this, for species listed on Schedule 1 of the WCA 1981 (as amended), it is an offence to intentionally or recklessly disturb birds while they are nest building, or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.
- A3.27 In addition to statutory protection, the bird species of Britain are also subject to various conservation designations intended to indicate their rarity, population status and conservation priority. These do not have statutory force but may be instrumental in determining local, regional and national planning and development policy. The main categories of designation comprise the British Trust for Ornithology (BTO) 'Species Alert' lists, the Royal Society for the Protection of Birds (RSPB) 'Birds of Conservation Concern' lists and species listed under Section 41 of the NERC Act 2006 and local Biodiversity Action Plans (BAPs).
- A3.28 The BTO Conservation Alert System lists of 'Birds of Conservation Concern' include a 'Red List' for birds of high conservation concern and an 'Amber List' for birds of medium conservation concern. Red List species are those that are globally threatened and Amber List species are those with an unfavourable conservation status in Europe, according to the International Union for Conservation of Nature (IUCN) criteria²¹. An updated list of 'Red' and 'Amber List' species was published in 2009 (Eaton et al., 2009)²².

Invertebrates

- A3.29 The majority of invertebrate species are not legally protected. However, a total of seventy-two terrestrial and aquatic invertebrate species are protected under the WCA 1981 (as amended). Certain species of invertebrate are also protected under the Conservation of Species and Habitats Regulations 2017.

Reptiles

- A3.30 All native British reptiles are protected in accordance with the WCA 1981 (as amended). There are two levels of protection afforded to reptiles through the WCA 1981 (as amended); these result from different parts of the Act applying to the different species.
- A3.31 In summary, common species of reptile such as common lizard *Zootoca vivipara*, slow worm *Anguis fragilis*, grass snake *Natrix natrix* and adder *Vipera berus* are partially protected under the WCA 1981 (as amended); this prohibits the intentional killing and injuring and trade (i.e. sale, barter, exchange, transporting for sale and advertising to sell or to buy). It is not an offence under the WCA 1981 (as amended) to disturb or possess these

²⁰ Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds

²¹ IUCN (2000): 'The revised Categories and Criteria (IUCN Red List Categories and Criteria version 3.1)'.

²² Eaton et al (2015): 'Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man'. British Birds 108, 708–746.

species.

Otter

A3.32 In summary otters receive protection under both the Conservation of Habitats and Species Regulations 2017 and WCA 1981 (as amended). Taken together it is an offence to deliberately, intentionally or recklessly;

- Kill, injure or capture an otter;
- Disturb an otter in such a way as to be likely significant to affect
 - the ability of otters to survive, breed, or rear / nurture their young; or
 - the local distribution of otter;
- Damage or destroy any breeding or resting place used by otter; or
- Disturb or obstruct access to any place used by otter for shelter or protection and disturbing otter while occupying such as place.

APPENDIX 4 PHOTOGRAPHS



Photo 1: Modified grassland typical of the Site



Photo 2: WB1



Photo 3: WB2 and adjacent bramble scrub



Photo 4: WB3



Photo 5: Hedge 1 (H1)



Photo 6: TN1; rabbit hole

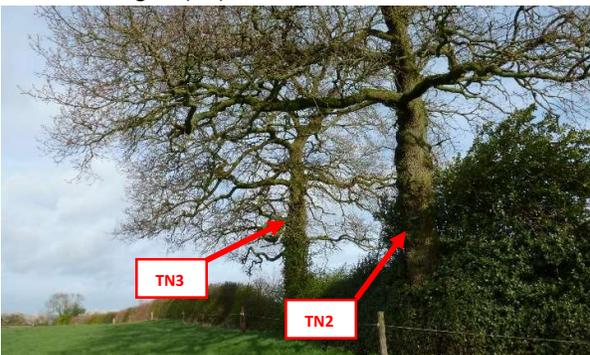


Photo 7: TN2 (mature pedunculate oak without PRFs for bats) and TN3 (Tree with PRFs)



Photo 8: Example of PRF in pedunculate oak



Photo 9: TN4; ivy covered alder trees

APPENDIX 5 REFERENCES

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